Docket No.: PAZ-178CPCN Group Art Unit: 1625 Examiner: C.C. Chang

### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions of the claims and listing of the claims in the application:

### 1.-15. (Cancelled)

#### 16. (Previously Presented) A tetracycline compound of formula (III):

$$R^{8}$$

$$I^{5}$$

$$I^{7}$$

$$I^{8}$$

$$I^{8}$$

$$I^{17}$$

$$I^{17}$$

$$I^{18}$$

$$I^{17}$$

$$I^{18}$$

wherein:

J<sup>5</sup> and J<sup>6</sup> are each independently hydrogen, alkyl, alkenyl, alkynyl, aryl, sulfonyl, acyl, alkoxycarbonyl, alkaminocarbonyl, alkaminothiocarbonyl, substituted thiocarbonyl, substituted carbonyl, alkoxythiocarbonyl, or linked to form a ring;

J<sup>7</sup> and J<sup>8</sup> are each alkyl, halogen, or hydrogen;

X is CR6'R6:

R<sup>2</sup>, R<sup>2</sup>, R<sup>4</sup>, and R<sup>4</sup> are each independently hydrogen, alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, arylalkyl, aryl, heterocyclic, heteroaromatic or a prodrug moiety;

> R<sup>4</sup> is NR<sup>4</sup>'R<sup>4</sup>", alkyl, alkenyl, alkynyl, aryl, hydroxyl, halogen, or hydrogen; R<sup>3</sup>, R<sup>10</sup>, R<sup>11</sup> and R<sup>12</sup> are each hydrogen or a pro-drug moiety;

R<sup>5</sup> is hydroxyl, hydrogen, thiol, alkanoyl, aroyl, alkaroyl, aryl, heteroaromatic, alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, arylalkyl, alkyl carbonyloxy, or aryl carbonyloxy,

R<sup>6</sup> and R<sup>6</sup> are each independently hydrogen, methylene, absent, hydroxyl, halogen, thiol, alkyl, alkenyl, alkynyl, aryl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, or an arylalkyl;

R<sup>7</sup> is hydrogen, ethyl, phenyl, 4-t-butylphenyl, t-butylaminophenyl or dimethylamino;

R<sup>8</sup> is hydrogen, hydroxyl, halogen, thiol, alkyl, alkenyl, alkynyl, aryl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, or an arylalkyl;

R<sup>13</sup> is hydrogen, hydroxyl, alkyl, alkenyl, alkynyl, alkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, alkylamino, or an arylalkyl; and pharmaceutically acceptable salts thereof.

- 17. (Original) The tetracycline compound of claim 16, wherein R<sup>4</sup> is NR<sup>4</sup>'R<sup>4</sup>", X is CR<sup>6</sup>R<sup>6</sup>'; R<sup>2</sup>, R<sup>6</sup>, R<sup>6</sup>, R<sup>8</sup>, R<sup>10</sup>, R<sup>11</sup>, and R<sup>12</sup> are each hydrogen; R<sup>4</sup> and R<sup>4</sup>" are lower alkyl; and R<sup>5</sup> is hydroxyl or hydrogen.
- 18. (Original) The tetracycline compound of claim 17, wherein  $R^{4'}$  and  $R^{4''}$  are each methyl and  $R^{5}$  is hydrogen.
- 19. (Original) The tetracycline compound of claim 16, wherein  $J^7$  and  $J^8$  are hydrogen.
- 20. (Original) The tetracycline compound of claim 16, wherein  $J^5$  is substituted or unsubstituted alkyl.
- 21. (Original) The tetracycline compound of claim 16, wherein J<sup>5</sup> is sulfonyl.
- 22. (Original) The tetracycline compound of claim 16, wherein  $J^5$  and  $J^6$  are linked to form a ring.
- 23. (Original) The tetracycline compound of claim 16, wherein J<sup>5</sup> is heteroaryl.
- 24. (Original) The tetracycline compound of claim 16, wherein J<sup>5</sup> is substituted carbonyl.
- 25. (Previously Presented) The tetracycline compound of claim 16, wherein said compound is selected from the group consisting of:

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wherein

R is substituted or unsubstituted alkyl, alkenyl, alkynyl, halogen, alkoxy; and Y is N, O, or S, or pharmaceutically acceptable salts or prodrugs thereof.

26. (Currently Amended) A tetracycline compound selected from the following:

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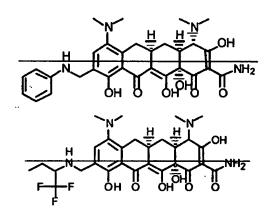
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or a pharmaceutically acceptable salt thereof.

- 27. (Previously Presented) A pharmaceutical composition comprising an effective amount of a tetracycline compound of any one of claims 16, 25 or 26, and a pharmaceutically acceptable carrier.
- 28. (Original) The pharmaceutical composition of claim 27, wherein said effective amount is effective to treat a tetracycline responsive state.

### 29.-42. (Cancelled)

43. (Previously Presented) The compound of claim 16, wherein R<sup>7</sup> is dimethylamino.

44. (Previously Presented) The compound of claim 16 or 24, wherein J<sup>6</sup> is alkyl.

45. (Currently Amended) The compound of claim 44, wherein said compound is

, and pharmaceutically acceptable salts

thereof.

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(New) The compound of claim 16, wherein said compound is 46.

, and pharmaceutically acceptable salts thereof.

(New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

48. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

49. (New) The compound of claim 16, wherein said compound is

and pharmaceutically acceptable salts thereof.

**50.** (New) The compound of claim 16, wherein said compound is

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#### 51. (New) The compound of claim 16, wherein said compound is

and pharmaceutically acceptable salts thereof.

#### 52. (New) The compound of claim 16, wherein said compound is

and pharmaceutically acceptable salts thereof.

#### **53**. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

#### (New) The compound of claim 16, wherein said compound is 54.

and pharmaceutically acceptable salts thereof.

#### (New) The compound of claim 16, wherein said compound is 55.

# 56. (New) The compound of claim 16, wherein said compound is

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## 57. (New) The compound of claim 16, wherein said compound is

## 58. (New) The compound of claim 16, wherein said compound is

### 59. (New) The compound of claim 16, wherein said compound is

## 60. (New) The compound of claim 16, wherein said compound is

## 61. (New) The compound of claim 16, wherein said compound is

# 62. (New) The compound of claim 16, wherein said compound is

## 63. (New) The compound of claim 16, wherein said compound is

### 64. (New) The compound of claim 16, wherein said compound is

### 65. (New) The compound of claim 16, wherein said compound is

## 66. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 67. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 68. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 69. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 70. (New) The compound of claim 16, wherein said compound is

## 71. (New) The compound of claim 16, wherein said compound is

## 72. (New) The compound of claim 16, wherein said compound is

## 73. (New) The compound of claim 16, wherein said compound is

## 74. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 75. (New) The compound of claim 16, wherein said compound is

## 76. (New) The compound of claim 16, wherein said compound is

77. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 78. (New) The compound of claim 16, wherein said compound is

## 79. (New) The compound of claim 16, wherein said compound is

### 80. (New) The compound of claim 16, wherein said compound is

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81. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

(New) The compound of claim 16, wherein said compound is 82.

, and pharmaceutically acceptable salts thereof.

(New) The compound of claim 16, wherein said compound is 83.

, and pharmaceutically acceptable salts thereof.

84. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

85. (New) The compound of claim 16, wherein said compound is

## 86. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 87. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 88. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 89. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 90. (New) The compound of claim 16, wherein said compound is

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#### 91. (New) The compound of claim 16, wherein said compound is

and pharmaceutically acceptable salts thereof.

#### 92. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

#### (New) The compound of claim 16, wherein said compound is 93.

and pharmaceutically acceptable salts thereof.

#### 94. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

#### (New) The compound of claim 16, wherein said compound is 95.

### 96. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

# 97. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 98. (New) The compound of claim 16, wherein said compound is

### 99. (New) The compound of claim 16, wherein said compound is

## 100. (New) The compound of claim 16, wherein said compound is

## 101. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 102. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 103. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 104. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 105. (New) The compound of claim 16, wherein said compound is

### 106. (New) The compound of claim 16, wherein said compound is

## 107. (New) The compound of claim 16, wherein said compound is

## 108. (New) The compound of claim 16, wherein said compound is

## 109. (New) The compound of claim 16, wherein said compound is

## 110. (New) The compound of claim 16, wherein said compound is

## 111. (New) The compound of claim 16, wherein said compound is

## 112. (New) The compound of claim 16, wherein said compound is

## 113. (New) The compound of claim 16, wherein said compound is

### 114. (New) The compound of claim 16, wherein said compound is

### 115. (New) The compound of claim 16, wherein said compound is

## 116. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 117. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 118. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 119. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 120. (New) The compound of claim 16, wherein said compound is

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## 121. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 122. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 123. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 124. (New) The compound of claim 16, wherein said compound is

and pharmaceutically acceptable salts thereof.

## 125. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 126. (New) The compound of claim 16, wherein said compound is

## 127. (New) The compound of claim 16, wherein said compound is

### 128. (New) The compound of claim 16, wherein said compound is

# 129. (New) The compound of claim 16, wherein said compound is

### 130. (New) The compound of claim 16, wherein said compound is

## 131. (New) The compound of claim 16, wherein said compound is

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#### (New) The compound of claim 16, wherein said compound is 132.

#### 133. (New) The compound of claim 16, wherein said compound is

#### (New) The compound of claim 16, wherein said compound is 134.

## (New) The compound of claim 16, wherein said compound is

### (New) The compound of claim 16, wherein said compound is

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#### 137. (New) The compound of claim 16, wherein said compound is

and pharmaceutically acceptable salts thereof.

## (New) The compound of claim 16, wherein said compound is

and pharmaceutically acceptable salts thereof.

## (New) The compound of claim 16, wherein said compound is

and pharmaceutically acceptable salts thereof.

#### (New) The compound of claim 16, wherein said compound is · 140.

, and pharmaceutically acceptable salts thereof.

### (New) The compound of claim 16, wherein said compound is

## 142. (New) The compound of claim 16, wherein said compound is

## 143. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 144. (New) The compound of claim 16, wherein said compound is

## 145. (New) The compound of claim 16, wherein said compound is

## 146. (New) The compound of claim 16, wherein said compound is

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## 147. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 148. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 149. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 150. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 151. (New) The compound of claim 16, wherein said compound is

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## 152. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 153. (New) The compound of claim 16, wherein said compound is

and pharmaceutically acceptable salts thereof.

### 154. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

## 155. (New) The compound of claim 16, wherein said compound is

, and pharmaceutically acceptable salts thereof.

### 156. (New) The compound of claim 16, wherein said compound is

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# 157. (New) The compound of claim 16, wherein said compound is